July 10, 2002

TO: Paul Prebilic, Art Unit 3738
CP2, Room 2-D-27

FROM: Jeanne Horrigan, EIC-3700

SUBJECT: Search Results for Serial #09/767346

Attached are the search results for the "Tissue Graft Construct for Replacement of Cartilagenous Structures," including results of prior art and inventor searches in foreign patent databases, and prior art searches in medical and general sci/tech non-patent databases. I also checked the Web through the Scirus search engine. I focused the search on the use of submucosa for orthopedic applications, specifically looking for descriptions of submucosa layered to between 1 and 12 mm thickness..

In the results, a highlighted line marks the end of a search, including the search strategy, in a particular set of databases and the beginning of a new search in a different set of databases.

I tagged the items that seemed to me to be most relevant, but **I suggest that you review all of the results**.

Also attached is a "*Search Results Feedback Form*." Your feedback will help enhance our search services.

I hope these results are useful. Please let me know if you would like me to expand or modify the search or if you have any questions.

8/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011535890 **Image available**
WPI Acc No: 1997-512371/199747

Forming tissue graft method for replacement or repair of cartilaginous structure - involves superimposing layers of submucosa and securing them together using conventional techniques including sutures, staples etc.

Patent Assignee: DEPUY ORTHOPAEDICS INC (DEPU-N); DUNN M D (DUNN-I); LOWER J L (LOWE-I); MAY T C (MAYT-I); PLOUHAR P L (PLOU-I)
Inventor: DUNN M D ; LOWER J L ; MAY T C ; PLOUHAR P L
Number of Countries: 020 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9737613	A1	19971016	WO 97US4527	A	19970404	199747 B
US 5788625	A	19980804	US 96628773	A	19960405	199838
EP 921769	A1	19990616	EP 97919889	A	19970404	199928
			WO 97US4527	A	19970404	
US 5922028	A	19990713	US 96628773	A	19960405	199934
			US 97951327	A	19971016	
JP 2000506408	W	20000530	JP 97528810	A	19970404	200033
			WO 97US4527	A	19970404	
US 6176880	B1	20010123	US 96628773	A	19960405	200107
			WO 97US4527	A	19970404	
			US 97913771	A	19971217	
US 20010002446	A1	20010531	US 96628773	A	19960405	200131
			WO 97US4527	A	19970404	
			US 97913771	A	19971217	
			US 2001767345	A	20010123	
US 20010023373	A1	20010920	US 96628773	A	19960405	200156
			WO 97US4527	A	19970404	
			US 97913771	A	19971217	
			US 2001767346	A	20010123	

Priority Applications (No Type Date): US 96628773 A 19960405; US 97951327 A 19971016; US 97913771 A 19971217; US 2001767345 A 20010123; US 2001767346 A 20010123
Cited Patents: US 3562820; US 4585458; WO 9506439
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9737613	A1	E	30	A61F-002/02	
Designated States (National): CA JP US					
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
US 5788625	A			A61F-002/04	
EP 921769	A1	E			Based on patent WO 9737613
Designated States (Regional): DE FR GB IT					
US 5922028	A			A61F-002/08	Div ex application US 96628773 Div ex patent US 5788625
JP 2000506408	W		26	A61F-002/02	Based on patent WO 9737613
US 6176880	B1			A61F-002/08	CIP of application US 96628773 CIP of patent US 5788625 Based on patent WO 9737613
US 20010002446	A1			A61F-002/28	CIP of application US 96628773 Cont of application WO 97US4527 Cont of application US 97913771 CIP of patent US 5788625

US 20010023373 A1	A61F-002/02	Cont of patent US 6176880 CIP of application US 96628773 Div ex application WO 97US4527 Div ex application US 97913771 CIP of patent US 5788625 Div ex patent US 6176880

Abstract (Basic): WO 9737613 A

The method involves superimposing a layers of intestinal **submucosa** and securing the layers together to form a multi-layered construct, and cutting the secured layers into the anatomical shape of the cartilaginous structure to be replaced or repaired. The multilayered constructs are provided with a sufficient number of **submucosa**l tissue layers to form a reconstructive tissue graft construct having the desired thickness for the replacement of the endogenous cartilaginous structure. The shape and thickness of the tissue graft construct may be varied depending on the cartilaginous structure to be replaced, however the multi-laminate constructs typically range from about 10 to about 300 layers with the final construct having a thickness of about 1 to about 12 mm.

In one form the tissue graft construct comprises about 25 to about 200 layers of **submucosa** tissue and has a final thickness of about 2 to about 8 mm. The layers of **submucosa** tissue are secured to one another by conventional techniques for example, sutures, adhesives, staples and drying the tissue. In form the layers of intestinal **submucosa** are compressed while the layers are secured, and in another the layers are compressed utilising a clamp, and more preferably using a clamp that is in the shape of the cartilaginous structure to be replaced.

ADVANTAGE - The graft can be formed for the replacement and repair of the articular cartilage of a joint, a meniscus shaped cartilaginous element or an intervertebral disc.

Dwg.1/13

Derwent Class: P32; P34
International Patent Class (Main): A61F-002/02; A61F-002/04; A61F-002/08; A61F-002/28
International Patent Class (Additional): A61L-027/00

9/7,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014511217 **Image available**
WPI Acc No: 2002-331920/200237

Bioprosthetic device for soft tissue attachment, reinforcement, and/or reconstruction, includes naturally occurring extracellular matrix portion and synthetic portion coupled to the collagen matrix portion

Patent Assignee: DEPUY ORTHOPAEDICS INC (DEPU-N); FERGUSON J W (FERG-I); MALAVIYA P (MALA-I); MELICAN M C (MELI-I); PLOUHAR P L (PLOU-I)
Inventor: FERGUSON J W; MALAVIYA P; MELICAN M C; PLOUHAR P L
Number of Countries: 029 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 1177800	A1	20020206	EP 2001306559	A	20010731	200237	B
AU 200157813	A	20020207	AU 200157813	A	20010806	200237	
US 20020038151	A1	20020328	US 2000223399	P	20000804	200237	
			US 2001918116	A	20010730		
JP 2002113025	A	20020416	JP 2001238270	A	20010806	200242	

Priority Applications (No Type Date): US 2000223399 P 20000804; US

2001918116 A 20010730
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
EP 1177800 A1 E 14 A61L-027/36
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
AU 200157813 A A61F-002/08
US 20020038151 A1 A61F-002/02 Provisional application US 2000223399
JP 2002113025 A 11 A61F-002/02
Abstract (Basic): EP 1177800 A1
NOVELTY - A bioprosthetic device comprises a naturally occurring extracellular matrix portion (12) and a synthetic portion (14) coupled to the collagen matrix portion.
USE - For soft tissue (e.g. ligaments or tendons) attachment, reinforcement, and/or reconstruction.
ADVANTAGE - The invention has an improved initial mechanical strength, thus obtaining desired differential biodegradation and bioremodeling rates. It provides an improved anchoring to the host tissue during surgery.
DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of a composite bioprosthetic device.
Matrix portion (12)
Synthetic portion (14)
Top tissue layer (16)
Bottom tissue layer (18)
First end (20)
Second end (22)
Sides (24)
Row (26)
Fibers (28)
Outer end portions (30)
Middle portion (32)
pp; 14 DwgNo 1/8
Derwent Class: A96; D22; P34
International Patent Class (Main): A61F-002/02; A61F-002/08; A61L-027/36
International Patent Class (Additional): A61B-017/00; A61F-009/00; A61L-027/00; A61L-027/40; A61L-027/44; A61L-027/50; A61L-027/58
Technology Focus:
... Preferred Component: **The matrix portion is a small intestinal submucosa (SIS) portion, and dehydrated. It includes a top tissue layer (16) of SIS coupled at...**

File 350:Derwent WPIX 1963-2002/UD,UM &UP=200242
File 344:CHINESE PATENTS ABS MAY 1985-2002/MAY
File 347:JAPIO Oct 1976-2002/Mar(Updated 020702)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	4	AU='PLOUHAR P':AU='PLOUHAR PAMELA'
S2	5	AU='DUNN M D'
S3	2	AU='LOWER J'
S4	12	AU='LOWER J L'
S5	9	AU='MAY T'
S6	3	AU='MAY T C'
S7	2	AU='MAY THOMAS C'
S8	**1**	**S1 AND S2 AND S3:S4 AND S5:S7**
S9	**1**	**(SUBMUCOSA AND S1:S7) NOT S8**

10/3,AB/2 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00483743
ACL FIXATION PIN AND METHOD
BROCHE DE FIXATION POUR LIGAMENT CROISE ANTERIEUR ET PROCEDE D'UTILISATION ASSOCIE
Patent Applicant/Assignee:
DEPUY ORTHOPAEDICS INC,
CLARK Ron,
LOWER Jerry L,
OLSEN Raymond E,
Inventor(s):
CLARK Ron,
LOWER Jerry L ,
OLSEN Raymond E
Patent and Priority Information (Country, Number, Date):
Patent: WO 9915095 A1 19990401
Application: WO 98US19931 19980924 (PCT/WO US9819931)
Priority Application: US 9759877 19970924; US 9878404 19980318
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 5098
English Abstract

A pin (20) and method for use are provided for securing a replacement ligament (24) inside a tunnel (10) of a receptor bone (36). A threaded section (30) of the pin (20) engages and anchors the pin (20) in the receptor bone (36). A first taper (26) opposite the threaded section (30) is configured to enter a drilled hole (14) which is transverse to the tunnel (10), capture a looped replacement ligament (24), and extend into the medial side (25) of the receptor bone (36). A second taper (28) urges the replacement ligament (24) against the wall (15) of the tunnel (10) and provides resistance when the second taper (28) contacts the medial side (25) of the bone (36), thus signaling that the pin (20) has been inserted to the proper depth. The body (21) of the pin (20) secures the looped replacement ligament (24) in the tunnel (10) and holds the replacement ligament (24) in contact with the wall (15) of the tunnel (10) to insure ingrowth.

File 348:EUROPEAN PATENTS 1978-2002/Jun W05
File 349:PCT FULLTEXT 1983-2002/UB=20020627,UT=20020620

Set	Items	Description
S1	4	AU='PLOUHAR':AU='PLOUHAR PAMELA L'
S2	3	AU='DUNN MICHAEL D':AU='DUNN MICHAEL DONOVAN C O EASTMAN K-ODAK COMPANY'
S3	3	AU='DUNN MICHAEL'
S4	10	AU='LOWER JERRY':AU='LOWER JERRY L'
S5	3	AU='MAY THOMAS'
S6	4	AU='MAY THOMAS C'

S7 2 S1 AND S2:S3 AND S4 AND S5:S6
S8 528 **SUBMUCOSA**
S9 19 S1:S6 NOT S7
S10 2 S8 AND S9

13/6/1 (Item 1 from file: 5)
13494148 BIOSIS NO.: 200200122969
Method of making reconstructive sis structure for cartilaginous elements in situ.
1998

13/6/2 (Item 2 from file: 5)
13138972 BIOSIS NO.: 200100346121
Tissue graft construct for replacement of cartilaginous structures.
2001

13/6/3 (Item 3 from file: 5)
12127261 BIOSIS NO.: 199900422110
Multi-layered SIS tissue graft construct for replacement of cartilaginous elements in situ.
1999

20/6/1 (Item 1 from file: 155)
DIALOG(R)File 155:
12970524 21908468 PMID: 11911579
Evaluation of small-intestinal **submucosa** implants for repair of meniscal defects in dogs.
Mar 2002

20/6/2 (Item 2 from file: 155)
DIALOG(R)File 155:
10474434 20013980 PMID: 10546657
Naturally occurring extracellular matrix as a scaffold for musculoskeletal repair.
Oct 1999

File 155:MEDLINE(R) 1966-2002/Jul W1
File 5:Biosis Previews(R) 1969-2002/Jun W5
File 73:EMBASE 1974-2002/Jun W5
File 34:SciSearch(R) Cited Ref Sci 1990-2002/Jul W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

Set	Items	Description
S1	40	AU='PLOUHAR P':AU='PLOUHAR PL'
S2	8	AU='LOWER J L'
S3	3	AU='LOWER JERRY L'
S4	20	AU='DUNN M D'
S5	14	AU='DUNN M.D.'
S6	17	AU='DUNN MD'
S7	2	AU='DUNN MICHAEL D'
S8	8	AU='MAY T C'
S9	3	AU='MAY T.C.'
S10	5	AU='MAY TC'
S11	5	AU='MAY THOMAS C'
S12	3	S1 AND S2:S3 AND S4:S7 AND S8:S11
S13	**3**	**RD (unique items)**

S14 113 S1:S11 NOT S12
S15 61 S14/2002 OR S14/2001 OR S14/2000 OR S14/1999 OR S14/1998 OR S14/1997
S16 52 S14 NOT S15
S17 13259 **SUBMUCOSA**
S18 0 S16 AND S17
S19 6 S15 AND S17
S20 2 RD (unique items)

30/7/5 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2002 Inst for Sci Info. All rts. reserv.
03692678 Genuine Article#: PX916 Number of References: 149
Title: BIOMATERIAL HOST INTERACTIONS - CONSEQUENCES, DETERMINED BY IMPLANT RETRIEVAL ANALYSIS
Author(s): KAPLAN SS
Corporate Source: UNIV PITTSBURGH,SCH MED,DEPT PATHOL,ROOM 5930,CHP MAIN TOWER,200 LOTHROP ST/PITTSBURGH//PA/15213
Journal: MEDICAL PROGRESS THROUGH TECHNOLOGY, 1994, V20, N3-4, P209-230
ISSN: 0047-6552
Language: ENGLISH Document Type: ARTICLE
Abstract: Prosthetic biomaterials have had a profound impact on reconstructive surgery but complete biocompatability remains illusive. This review considers the retrieval analysis of four common prosthetic structures: the hip, the knee, heart valves, and blood vessels. We show that despite a fine record of early success, deterioration due to mechanical failure or deleterious host responses to the implant may compromise long term function. The eventual retrieval and detailed analysis of implanted structures provides an invaluable opportunity to determine the characteristics of implant success or failure and to provoke the development of still better materials.

File 155:MEDLINE(R) 1966-2002/Jul W1
File 144:Pascal 1973-2002/Jul W1
File 5:Biosis Previews(R) 1969-2002/Jun W5
File 6:NTIS 1964-2002/Jul W3
File 8:Ei Compendex(R) 1970-2002/Jul W1
File 99:Wilson Appl. Sci & Tech Abs 1983-2002/May
File 238:Abs. in New Tech & Eng. 1981-2002/Jun
File 65:Inside Conferences 1993-2002/Jul W1
File 77:Conference Papers Index 1973-2002/May
File 73:EMBASE 1974-2002/Jun W5
File 34:SciSearch(R) Cited Ref Sci 1990-2002/Jul W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 94:JICST-EPlus 1985-2002/May W3
File 35:Dissertation Abs Online 1861-2002/Jun
Set Items Description
S1 16092 **SUBMUCOSA**
S2 1315417 MILLIMET? OR MM
S3 645436 LAYERS OR STRATA
S4 59102 THICKNESSES
S5 135 S1 AND S2 AND S3:S4
S6 139004 R1:R2
S7 21698 R3:R5
S8 141656 R7:R43
S9 206664 S6:S8

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S10     483868   HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S11      96610   S9 AND S10
S12     483868   S10:S11
S13     999985   JOINT? ?
S14    1293477   S12:S13
S15          1   S5 AND S14 [not relevant]
S16         63   S5/2002 OR S5/2001 OR S5/2000 OR S5/1999 OR S5/1998 OR S5/1997
S17         72   S5 NOT S16
S18         39   RD (unique items)
S19         38   S18 NOT S15
S20         38   Sort S19/ALL/PY,D [not relevant]
S21         87   S1 AND (S10 OR S13)
S22         30   (S10/TI,DE OR S13/TI,DE) AND S21
S23         58   S21/2002 OR S21/2001 OR S21/2000 OR S21/1999 OR S21/1998 OR
                 S21/1997
S24         21   S22 AND S23
S25         19   RD (unique items)
S26         19   S25 NOT S20
S27         29   S21 NOT S23
S28         20   RD (unique items)
S29         20   S28 NOT S20
S30         20   Sort S29/ALL/PY,D


File   9:Business & Industry(R) Jul/1994-2002/Jul 05
File  16:Gale Group PROMT(R) 1990-2002/Jul 09
File 160:Gale Group PROMT(R) 1972-1989
File  98:General Sci Abs/Full-Text 1984-2002/May
File  95:TEME-Technology & Management 1989-2002/Jul W1
File 148:Gale Group Trade & Industry DB 1976-2002/Jul 05
File 621:Gale Group New Prod.Annou.(R) 1985-2002/Jul 04
File 636:Gale Group Newsletter DB(TM) 1987-2002/Jul 04
File 441:ESPICOM Pharm&Med DEVICE NEWS 2002/Jun W4
File  20:Dialog Global Reporter 1997-2002/Jul 09
File 810:Business Wire 1986-1999/Feb 28
File 813:PR Newswire 1987-1999/Apr 30
File 610:Business Wire 1999-2002/Jul 09
File 613:PR Newswire 1999-2002/Jul 09
File  15:ABI/Inform(R) 1971-2002/Jul 09
File  88:Gale Group Business A.R.T.S. 1976-2002/Jul 04
File 442:AMA  Journals 1982-2002/Jun B2
File 444:New England Journal of Med. 1985-2002/Jul W1
File 149:TGG Health&Wellness DB(SM) 1976-2002/Jun W5
Set     Items   Description
S1       1240   SUBMUCOSA
S2        445   PIG? ?(3N)INTESTINE? ?
S3      19162   SIS
S4     668346   LAYER?? OR STRATA
S5     174284   THICKNESS??
S6     489458   MM OR MILLIMET?
S7         10   S1:S3(S)S4:S5(5N)S6
S8         10   RD (unique items) [not relevant]


File 350:Derwent WPIX 1963-2002/UD,UM &UP=200242
File 344:CHINESE PATENTS ABS MAY 1985-2002/MAY
```

File 347:JAPIO Oct 1976-2002/Mar(Updated 020702)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	77	**SUBMUCOSA**
S2	115	**PIG**? ?(3N)INTESTINE? ?
S3	1722	SIS
S4	1659330	LAYER?? OR STRATA
S5	629021	THICKNESS??
S6	250501	MM OR MILLIMET?
S7	2020	IC='A61F-002/02'
S8	15	S1:S3 AND S4:S5(5N)S6
S9	1	S7 AND S8
S10	**14**	**S8 NOT S9 [not relevant]**

17/3,AB,K/4 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.
00568881
METHOD FOR VOCAL CORD RECONSTRUCTION
PROCEDE DE RECONSTRUCTION DE CORDES VOCALES
Patent Applicant/Assignee:
PURDUE RESEARCH FOUNDATION,
BADYLAK Stephen F,
SPIEVACK Alan R,
Inventor(s):
BADYLAK Stephen F,
SPIEVACK Alan R,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200032254 A1 20000608 (WO 0032254)
Application: WO 99US28300 19991201 (PCT/WO US9928300)
Priority Application: US 98110401 19981201; US 98110465 19981201
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM
AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL
PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 6246
English Abstract
A method for surgical repair of damaged or diseased head and neck tissues is described. In one aspect of the invention tissue graft constructs comprising vertebrate **submucosa** or vertebrate basement membrane materials are used to repair and promote growth of endogenous vocal cord tissue.
Detailed Description
... The individual layers fonning the multi-layered construct can be prepared from sheets of **submucosa** and/or basement membrane, wherein each sheet is cut to the same dimensions. Alternatively each...
...differ in thickness. Typically the sheets of basement membrane will be **cut to have a thickness of about 0.05 mm to about 1.5 mm, and more preferably about 0.2 to about 0.5**...

17/3,AB,K/14 (Item 14 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.

00191370
HOLLOW VISCUS PROSTHESIS AND METHOD OF IMPLANTATION
PROTHESE CREUSE POUR VISCERE ET METHODE D'IMPLANTATION
Patent Applicant/Assignee:
  BIOSYNTHESIS INC,
Inventor(s):
  ORTH Jeffrey L,
  HOFFER Richard E,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 9108718 A1 19910627
  Application: WO 90US7233 19901207 (PCT/WO US9007233)
  Priority Application: US 8948 19891207
Designated States: AT AU BE CA CH DE DK ES FR GB GR IT JP LU NL SE
Publication Language: English
Fulltext Word Count: 7871
English Abstract
  A prosthetic device capable of implantation in living tissue is disclosed which comprises a porous synthetic substrate (52) having opposing surfaces and collagenous material (54) in contact with the porous substrate. In a preferred embodiment, the substrate is comprised of synthetic material having irregular porosity. Fibroblasts (56) may also be in contact with the collagenous material (54) and the porous synthetic substrate (52). The invention may be used for repairing or replacing body tissues or viscera.
Detailed Description
... A deffect the same size as the patch was created in the bladder. The **mucosa- submucosa was dissected from the sero-muscular layer creating a 2 mm flange.** The mucosal layer was sutured to thelcultured (lumen) surface of the patch with a continuous suture

File 348:EUROPEAN PATENTS 1978-2002/Jun W05
File 349:PCT FULLTEXT 1983-2002/UB=20020627,UT=20020620

Set	Items	Description
S1	528	**SUBMUCOSA**
S2	215	**PIG**? ?(3N)INTESTINE? ?
S3	10121	SIS
S4	379374	LAYER?? OR STRATA
S5	272265	THICKNESS??
S6	404262	MM OR MILLIMET?
S7	66	S1:S3(S)S4(5N)S5
S8	55	S6 AND S7
S9	23	S1 AND S8
S10	23	S1(S)S4(5N)S5
S11	15	S1(S)S4:S5(5N)S6
S12	51	S2:S3(S)S4:S5(5N)S6
S13	731	IC='A61F-002/02'
S14	1	S11 AND S13
S15	1	S12 AND S13
S16	**1**	**S14:S15**
S17	**14**	**S11 NOT S16**

26/6,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:
08762843 96119591 PMID: 8585681
  Small intestinal **submucosa** : utilization as a wound dressing in

full-thickness rodent wounds.
Oct 1995
...C D; Eppley B L; Summerlin D J; Sidner R; Jackson J R; McCarty M; Badylak S F
... decrease wound contamination as well as evaporative water loss. A new material, porcine small intestinal **submucosa** , has been used successfully as an arterial and venous graft in both canine and primate...
... graft patency and infection rates equal to autologous vein. Based on these studies, small intestinal **submucosa** was used as a biological wound dressing in 20 x 20 mm full-thickness wounds made on Sprague-Dawley rats. In the controls (group I, n = 12), an acrylic frame (20 x 20 mm) was sutured to the wound edges, followed by placement of a thin polyurethane film. In the small intestinal **submucosa** -treated animals (group II, n = 12), the wound was covered with small intestinal **submucosa** and then with the acrylic frame and polyurethane film. The wounds were examined both visually...
... 3 months. Histological analysis (hematoxylin-eosin and periodic acid-Schiff stains) of the small intestinal **submucosa** -treated wounds revealed no host-versus-graft rejection and a rate of epithelialization equal to...
... was statistically significant (higher; $p < .05$) in the control group compared to the small intestinal **submucosa** -treated group. Porcine small intestinal **submucosa** merits further study as both a biological wound dressing and as a substrate for cultured...

26/6,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:
08482447 95240056 PMID: 7723321
Healing comparison of small intestine **submucosa** and ePTFE grafts in the canine carotid artery.
Apr 1995
Sandusky G E; Lantz G C; Badylak S F
... been found. We compared healing of xenogeneic small diameter grafts (3.5 to 5.0 mm diameter) made from porcine small intestine **submucosa** (SIS) implanted in the carotid artery to expanded polytetrafluorethylene (ePTFE) in the contralateral carotid in 8...
... sacrificed for graft evaluation at 7, 28, 90, and 180 days after surgery. Only one SIS graft was occluded at 28 days and the other 7 were patent. Six of 8...
...and one at 90 days. At 7 days post-implant, the luminal surface of the SIS graft was covered by a thick (30 microns), compact fibrin meshwork. By 28 days endothelial...
...the ePTFE graft, but it did not penetrate into the graft as seen in the SIS graft. At 90 days the SIS vascular graft had the histological appearance similar to a normal artery. The SIS graft potency and healing characteristics were superior to the synthetic ePTFE graft and warrant further...

26/6,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:
08373071 95131708 PMID: 7830542
Experimental evaluation of small intestinal **submucosa** as a microvascular graft material.
1994
...D; Eppley B L; McCarty M; Jackson J R; Voytik S L; Hiles M C; Badylak S F

The evaluation of porcine small intestine **submucosa** (SIS) in a microsurgical model was conducted using an interpositional graft in the rat femoral artery. The SIS grafts were fabricated from processed porcine material that was wrapped around a glass tube and...
... to produce a tubular structure. Of the 42 animals studied, 7 received grafts of untreated SIS (group I), 7 of the grafts were presoaked (PSH) in heparin (Group II), 7 animals were treated with systemic heparin prior to implantation of PSH- SIS (group III), 7 animals received SIS grafts crosslinked to heparin (group IV), 7 animals received SIS grafts crosslinked to urokinase (group V), and 7 animals received untreated autologous **epig**astric vein grafts (group VI). Patency was assessed postoperatively and selected grafts were evaluated by histology. All SIS grafts failed to maintain patency beyond the first postoperative hour. Histologic examination of the thrombosed...
...significantly at the microvascular level. While having excellent success at vessel diameters greater than 3 mm , and in a variety of nonporcine animal models without xenographic rejection, SIS in this model was thrombogenic despite a favorable surface morphology as demonstrated by SEM. Even with use of heparin and urokinase SIS graft thrombosis occurred.

26/6,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:
07929703 94064688 PMID: 8245038
Directional porosity of porcine small-intestinal **submucosa** .
Oct 1993
Ferrand B K; Kokini K; Badylak S F ; Geddes L A; Hiles M C; Morff R J
Small-intestinal **submucosa** (SIS) has been shown to be a promising biomaterial for vascular graft applications. This study examines the directionality property of SIS porosity using 35 SIS specimens from 13 **pig**s. In addition, the effects of the weight of the donor **pig**, pre-conditioning of 13 additional SIS specimens, and the duration of the test of five additional SIS specimens on such porosity are reported. The porosity from serosal to mucosal direction was found...
...The weight of the donor **pig** was not found to be an important factor in SIS porosity. Preconditioning served to increase the average serosal porosity index at 120 mm Hg static water pressure from 2.99 to 8.33 mL/(min cm2). The porosity...
... by preconditioning. Porosity in both directions decreased with increasing test duration. The directionality property of SIS porosity may be an important factor in its success as a vascular graft. The term...

26/6,K/5 (Item 5 from file: 155)
DIALOG(R)File 155:
07645948 93171231 PMID: 8436570
Porosity of porcine small-intestinal **submucosa** for use as a vascular graft.
Feb 1993
Hiles M C; Badylak S F ; Geddes L A; Kokini K; Morff R J
... study was to determine the water porosity of a new vascular graft material, small-intestinal **submucosa** (SIS), and to compare the values to those reported for other common vascular graft materials. In addition, the porosity of SIS was investigated with respect to applied pressure and applied uniaxial tension. Both rectangular, flat specimens and tubular specimens of SIS were subjected to static water pressure, and water was collected as it passed through the SIS material. SIS has a typical porosity of 0.52 mL/min.cm-2 at an applied pressure of 120 mm Hg.

Although porosity appeared to be unaffected by uniaxial tension, it increased in proportion to applied pressure at a rate of 4.8 x 10(-3) mL/min.cm-2/ mm Hg. These low porosity values and the past success of SIS as a vascular graft material suggest that high-porosity materials are not required for implant...

26/6,K/6 (Item 6 from file: 155)
DIALOG(R)File 155:
06850263 91175654 PMID: 2078544
Small intestinal **submucosa** as a small-diameter arterial graft in the dog. 1990
Lantz G C; Badylak S F ; Coffey A C; Geddes L A; Blevins W E
... been used as small-diameter arterial grafts with moderate success. We tested autogenous small intestine **submucosa** as a small-diameter arterial graft in both a carotid and femoral artery (mean ID 4.3 mm) of 18 dogs (total of 36 grafts). All dogs received aspirin and warfarin sodium for...
... anticoagulation therapy was 92.3% (12 of 13 grafts). We conclude that autogenous small intestinal **submucosa** can be used as a small-diameter arterial graft in the dog and is worthy...

26/6,K/7 (Item 7 from file: 155)
DIALOG(R)File 155:
06206942 89294579 PMID: 2739401
Small intestinal **submucosa** as a large diameter vascular graft in the dog. Jul 1989
Badylak S F ; Lantz G C; Coffey A; Geddes L A
... possible if superior graft material was available. We tested the use of autogenous small intestinal **submucosa** (SIS) as a large diameter (10 mm) vascular graft in the infrarenal aorta of 12 dogs. One dog died with graft thrombosis...
... There was no ultrastructural evidence of endothelial cell growth on the luminal surface of the SIS graft which was composed of a dense, non-thrombogenic, organized collagenous connective tissue. The SIS material was approximately one order of magnitude less elastic than natural aorta and showed an...
... as determined by positive contrast radiography and Doppler studies. We conclude that autogenous small intestinal **submucosa** can be successfully used as a large diameter arterial graft in the dog and is...

File 155:MEDLINE(R) 1966-2002/Jul W1
File 144:Pascal 1973-2002/Jul W1
File 5:Biosis Previews(R) 1969-2002/Jun W5
File 6:NTIS 1964-2002/Jul W3
File 8:Ei Compendex(R) 1970-2002/Jul W1
File 99:Wilson Appl. Sci & Tech Abs 1983-2002/May
File 238:Abs. in New Tech & Eng. 1981-2002/Jun
File 65:Inside Conferences 1993-2002/Jul W1
File 77:Conference Papers Index 1973-2002/May
File 73:EMBASE 1974-2002/Jun W5
File 34:SciSearch(R) Cited Ref Sci 1990-2002/Jul W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 94:JICST-EPlus 1985-2002/May W3
File 35:Dissertation Abs Online 1861-2002/Jun
Set Items Description
S1 16093 **SUBMUCOSA**
S2 12357 **PIG**? ?(3N)INTESTINE? ?

```
S3       15008   SIS
S4     1837423   LAYER?? OR STRATA
S5      663471   THICKNESS??
S6     1315486   MM OR MILLIMET?
S7       99209   BASEMENT()MEMBRANE
S8         342   S1 AND S7
S9       16093   S1
S10      35273   S4:S5(5N)S6
S11     141695   S1 OR S2 OR S3 OR S7
S12        138   S10(S)S11
S13         48   S1(S)S10
S14      26906   S4:S5(3N)S6
S15         20   S13(S)S14
S16          9   RD (unique items)[one duplicate; the rest not relevant]
S17         28   S13 NOT S15
S18         15   S17/2002 OR S17/2001 OR S17/2000 OR S17/1999 OR S17/1998 OR
                 S17/1997
S19         13   S17 NOT S18
S20          6   RD (unique items)
S21        569   AU='BADYLAK S':AU='BADYLAK STEVEN F'
S22        227   S1:S3 AND S21
S23        116   S22/2002 OR S22/2001 OR S22/2000 OR S22/1999 OR S22/1998 OR
                 S22/1997
S24        111   S22 NOT S23
S25         41   RD (unique items)
S26          7   S6 AND S25
```

2/9/4 (Item 2 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2002 The Gale Group. All rts. reserv.
03619887 SUPPLIER NUMBER: 16767460

New material mimics Mother Nature.(small intestine submucosa from pigs used to reconstruct damaged human tissues)

USA Today (Magazine), v123, n2597, p7(2)
Feb, 1995
ISSN: 0161-7389 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 448 LINE COUNT: 00036
TEXT:

Football players who injure their knees carrying the pigskin someday may get medical help from pig intestines . Biomedical researchers at Purdue University have developed a material from the animals' intestines that, when inserted into the human body, may help it reconstruct a variety of **damaged tissues, such as torn ligaments or tendons**, diseased urinary bladders, or severely burned skin.

The fundamental principle behind this material is that, once inserted into the body, it gets broken down and rebuilt into something that resembles the original tissue or organ," explains Stephen F. Badylak, director of research for Purdue's Hillenbrand Biomedical Engineering Center and coordinator for the project.

The material, called **small-intestinal submucosa (SIS)**, is derived from a middle layer of the small intestine of pigs. Once this layer of intestine is removed, it can be sterilized and molded into different forms, such as tubes or sheets, or stored for future use. Though SIS comes from a biological source, to date there have been no problems with rejection.

"We're using a mixture of molecules developed and organized by Mother

Nature. SIS is a composite of connective tissues that include collagen and proteins and various other bioactive molecules that we have not fully characterized." Animal studies show that, when inserted into a body, these molecules are capable of interacting with host cells, sending and receiving signals that tell the material how to "perform" like the original tissue and encouraging neighboring cells to migrate. This interaction may be what allows SIS to remodel itself once it is implanted in the body.

Once rebuilt within a body, it has the ability to strengthen in response to stress, much like natural tissue. This ability to gain strength makes SIS ideal in orthopedic applications **such as replacement material for damaged ligaments and tendons**. The Purdue research team is working with DePuy Inc., Warsaw, Ind., to develop SIS ligaments that could be used to treat "blowouts, " knee injuries that involve damage to a ligament that runs from the femur (thigh bone) to the tibia (the bone below the knee). "The SIS implants start out weaker than synthetic ligaments, but become heavier and stronger with use, just like natural muscle," Badylak points out.

SIS also might be used to connect synthetic implants to the body, he indicates. "In many cases, the body will develop scar tissue or `wall off' a synthetic implant once it has been introduced into the body. Such scars can interfere with nerves, blood vessels, and muscles. SIS might be used to incorporate implants into the body's own tissue, thus avoiding scarring and any subsequent problems."

DESCRIPTORS: Gastrointestinal mucosa--Therapeutic use; Transplantation of organs, tissues, etc.--Research; Healing--Research
SPECIAL FEATURES: illustration; photograph

File 9:Business & Industry(R) Jul/1994-2002/Jul 05
File 20:Dialog Global Reporter 1997-2002/Jul 09
File 88:Gale Group Business A.R.T.S. 1976-2002/Jul 04
File 149:TGG Health&Wellness DB(SM) 1976-2002/Jun W4
File 484:Periodical Abs Plustext 1986-2002/Jun W5
File 608:KR/T Bus.News. 1992-2002/Jul 09

Set	Items	Description
S1	7	DEPUY AND PIG()INTESTINES
S2	**4**	**RD (unique items)**

11/6,K/13 (Item 13 from file: 73)
DIALOG(R)File 73:(c) 2002 Elsevier Science B.V. All rts. reserv.
03341454 EMBASE No: 1987094031
Phosphate transport in brush-border membranes from control and rachitic pig kidney and small intestine
1987
SECTION HEADINGS:
037 Drug Literature Index
002 Physiology
033 Orthopedic Surgery
003 Endocrinology

11/7/1 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2002 Elsevier Science B.V. All rts. reserv.
06653793 EMBASE No: 1996318664
Glycosaminoglycan content of small intestinal submucosa : A bioscaffold for tissue replacement

Hodde J.P.; Badylak S.F.; Brightman A.O.; Voytik-Harbin S.L.
Hillenbrand Biomedical Engg. Center, 1293 Potter Engineering Center,West Lafayette, IN 47907-1293 United States
Tissue Engineering (TISSUE ENG.) (United States) 1996, 2/3 (209-217)
CODEN: TIENF ISSN: 1076-3279
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Small intestinal submucosa (SIS) is a resorbable biomaterial that induces tissue remodeling when used as a xenogeneic tissue graft in animal models of vascular, urologic, dermatologic, neurologic, and orthopedic injury. Determination of the composition and structure of naturally occurring biomaterials such as SIS that promote tissue remodeling is necessary for the greater understanding of their role in wound healing. Since glycosaminoglycans (GAGs) are important components of extracellular matrix (ECM) and SIS is primarily an ECM-based material, studies were performed to identify the species of glycosaminoglycans present in SIS. Porcine SIS was chemically extracted and the extracts were analyzed for uronic acid. The extractable uronic acid content was determined to be 47.7 mumol/g (approximately 21 mug GAG/mg) of the dry weight of the SIS tissue. Using electrophoretic separation of GAGs on cellulose acetate membranes, hyaluronic acid, heparin, heparan sulfate, chondroitin sulfate A, and dermatan sulfate were identified. Digestion of specific GAGs with selective enzymes confirmed the presence of these GAG species. Two GAGs common to other tissues with large basement membrane ECM components, keratan sulfate and chondroitin sulfate C, were not detected in the SIS extracts. **Identification of specific GAGs in the composition of the ECM-rich SIS provides a starting point toward a more comprehensive understanding of the structure and function of this naturally occurring biomaterial with favorable in vivo tissue remodeling properties.**

11/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
08719206 96082852 PMID: 7593041

The use of xenogeneic small intestinal submucosa as a biomaterial for Achilles tendon repair in a dog model.

Badylak S F; Tullius R; Kokini K; Shelbourne K D; Klootwyk T; Voytik S L; Kraine M R; Simmons C

Hillenbrand Biomedical Engineering Center, Purdue University, West Lafayette, Indiana 47907, USA.

Journal of biomedical materials research (UNITED STATES) Aug 1995, 29 (8) p977-85, ISSN 0021-9304 Journal Code: 0112726
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

A study was conducted to evaluate the tissue response to a xenogeneic biomaterial when this material was used to repair an experimentally induced Achilles tendon defect in the dog. **Twenty dogs had a 1.5 cm segmental defect of the Achilles tendon created surgically which was then repaired with acellular connective tissue derived from porcine small intestinal submucosa (SIS).** The animals were sacrificed at 1, 2, 4, 8, 12, 16, 24, and 48 weeks and the neotendons examined for uniaxial longitudinal tensile strength, morphologic appearance, hydroxyproline (collagen) content, and disappearance of the originally implanted SIS material over time. The contralateral normal Achilles tendons served as controls as did four additional dogs that had a 1.5 cm segmental Achilles tendon defect created

surgically without subsequent surgical repair with SIS. Results showed the SIS remodeled neotendons to be stronger than the musculotendinous origin or the boney insertion (> 1000 N) by 12 weeks after surgery and to consist of organized collagen-rich connective tissue similar to the contralateral normal tendons. The four dogs in which no SIS was implanted showed inferior strength at the comparable time points of 4, 8, 12, and 16 weeks. Immunohistochemical studies suggest that the SIS biomaterial becomes degraded within the first eight weeks and serves as a temporary scaffold around which the body deposits appropriate and organized connective tissue. SIS is a promising biomaterial worthy of further investigation for orthopedic soft tissue applications.
Record Date Created: 19951212

11/6/9 (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2002 Inst for Sci Info. All rts. reserv.
03041228 Genuine Article#: MZ261 Number of References: 70
Title: NERVE-ENDINGS WITH STRUCTURAL CHARACTERISTICS OF MECHANORECEPTORS IN THE HUMAN SCLERAL SPUR

11/7/10 (Item 10 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2002 Elsevier Science B.V. All rts. reserv.
05396646 EMBASE No: 1993164745
Access to the central skull base via a modified Le fort I maxillotomy: The palatal hinge flap
Catalano P.J.; Biller H.F.; Sachdev V.
Dept of Otolaryngology, Box 1189, Mount Sinai School of Medicine, 1 Gustave L Levy Place,New York, NY 10029-6574 United States
Skull Base Surgery (SKULL BASE SURG.) (United States) 1993, 3/2 (60-68)
CODEN: SBSUE ISSN: 1052-1453
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

11/7/18 (Item 18 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2002 INIST/CNRS. All rts. reserv.
02272261 PASCAL No.: 79-0229004
NASAL INJURIES: THEIR PATHOGENESIS AND TREATMENT
HARRISON D H
BANGOUR HOSP., BROXBURN,UNITED KINGDOM
Journal: BRIT. J. PLAST. SURG., 1979, 32 (1) 57-64
Availability: CNRS-11042
No. of Refs.: 9 REF.
Document Type: P (SERIAL) ; A (ANALYTIC)
Country of Publication: UNITED KINGDOM
Language: ENGLISH

File 155:MEDLINE(R) 1966-2002/Jul W1
File 144:Pascal 1973-2002/Jul W1
File 5:Biosis Previews(R) 1969-2002/Jun W5
File 6:NTIS 1964-2002/Jul W3
File 2:INSPEC 1969-2002/Jul W1
File 8:Ei Compendex(R) 1970-2002/Jul W1
File 99:Wilson Appl. Sci & Tech Abs 1983-2002/May

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File 238:Abs. in New Tech & Eng. 1981-2002/Jun
File  65:Inside Conferences 1993-2002/Jul W1
File  77:Conference Papers Index 1973-2002/May
File  73:EMBASE 1974-2002/Jun W5
File  34:SciSearch(R) Cited Ref Sci 1990-2002/Jul W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File  94:JICST-EPlus 1985-2002/May W3
File  35:Dissertation Abs Online 1861-2002/Jun
File  50:CAB Abstracts 1972-2002/Jun
Set     Items   Description
S1      18438   PIG??(3N)INTESTIN??
S2    1381759   JOINT? ? OR HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S3     470694   ORTHOPEDIC? OR ORTHOPAEDIC?
S4         20   S1 AND S2:S3
S5      16827   SUBMUCOSA
S6         30   (S5 AND S3) NOT S2
S7         50   S4 OR S6
S8         42   RD (unique items)
S9         20   S8/2002 OR S8/2001 OR S8/2000 OR S8/1999 OR S8/1998 OR S8/1997
S10        22   S8 NOT S9
S11        22   Sort S10/ALL/PY,D
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12/3,AB,K/3 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2002 The Gale Group. All rts. reserv.
04182413 Supplier Number: 46109870
Researchers coax bladder tissue to regenerate
Urology Times, p9
Feb, 1996
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 644

... bladder. And researchers from Indiana University School of Medicine in Indianapolis are using **xenografts - small intestinal submucosa from pigs - as a biodegradable scaffold to grow new tissue on.**

James J. Yoo, MD, a research...

...the meeting's basic science research prize. He has been working with the small intestinal submucosa (SIS, Cook Biotech Inc), which is made by removing the mucosa from the inner surface...

...original SIS-graft material.

Besides urologic applications, **the material has already been tested experimentally in orthopedics , notably for repairs of the anterior cruciate ligament, noted Dr. Kropp...**

12/3,AB,K/5 (Item 5 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2002 ProQuest Info&Learning. All rts. reserv.
01024555 96-73948
Man and pig: A future connection?
Anonymous
Futurist v29n3 PP: 53 May/Jun 1995 ISSN: 0016-3317 JRNL CODE: FUS
WORD COUNT: 341

ABSTRACT: **Biomedical researchers at Purdue University have developed a material from pigs ' intestines that may be able to reconstruct torn ligaments**, diseased bladders, or severely burned skin in humans. **The new**

material, small-intestinal submucosa (SIS), is derived from a middle layer of the small intestines of pigs . Once this layer of intestine is removed, it can be sterilized and molded into different forms.
TEXT: Biomedical researchers at Purdue University have developed a material from pigs ' intestines that may be able to reconstruct torn ligaments, diseased bladders, or severely burned skin in...
...new material, small-intestinal submucosa (SIS), is derived from a middle layer of the small intestine of pigs . Once this layer of intestine is removed, it can be sterilized and molded into different...
... Stephen E Badylak, director of research for Purdue's biomedical program and coordinator of the pig intestines project.
Once the SIS material is rebuilt within a body, it has the ability to...
... stress, much like natural tissue. This ability to gain strength makes the material ideal in orthopedic applications such as replacement material for damaged ligaments and tendons.
SIS could be ideal for treating sports-related injuries. In knee injuries, for example, current method use synthetic fibers to replace damaged ligaments. Such implants tend...

12/3,AB,K/6 (Item 6 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2002 The Gale Group. All rts. reserv.
03619887 SUPPLIER NUMBER: 16767460
New material mimics Mother Nature.(small intestine submucosa from pigs used to reconstruct damaged human tissues)
USA Today (Magazine), v123, n2597, p7(2)
Feb, 1995
ISSN: 0161-7389 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 448 LINE COUNT: 00036
TEXT:
Football players who injure their knees carrying the pigskin someday may get medical help from pig intestines . Biomedical researchers at Purdue University have developed a material from the animals' intestines that, when...
... material, called small-intestinal submucosa (SIS), is derived from a middle layer of the small intestine of pigs . Once this layer of intestine is removed, it can be sterilized and molded into different...
...to stress, much like natural tissue. This ability to gain strength makes SIS ideal in orthopedic applications such as replacement material for damaged ligaments and tendons. The Purdue research team is...
...DePuy Inc., Warsaw, Ind., to **develop SIS ligaments that could be used to treat "blowouts, " knee injuries that involve damage to a ligament that runs from the femur (thigh bone) to the tibia (the bone below the knee).**
"The SIS implants start out weaker than synthetic ligaments, but become heavier and stronger with...

12/3,AB,K/8 (Item 8 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2002 The Gale Group. All rts. reserv.
03663177 Supplier Number: 45173500
Orthopedic Relacements from Pigs Intestines
Industries In Transition, v22, n8, pN/A
Dec, 1994
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 418

TEXT:
...West lafayette, IN), the answer lies in pigs in the middle layer of the small intestine of the pigs , to be precise.
... **Although the researchers are still looking at that application, their immediate interests are in orthopedic applications, for repairing damaged ligaments and tendons. The Purdue team is currently working with DePuy...**
...to develop ligaments from SIS. Such ligaments may be used one day to treat blowouts, knee injuries that involve damage to a ligament that runs from the femur, or thigh bone, to the tibia, the bone below the knee .
Such injuries are careerending injuries for athletes. The traditional procedure is a traumatic procedure that takes a connective tissue or tendon from a separate location from the same knee , and replacing the injured ligament. Synthetic fiber implant is another option, but they tend to...

12/3,AB,K/9 (Item 9 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2002 The Gale Group. All rts. reserv.
07338125 SUPPLIER NUMBER: 15918525
From a pig 's intestine to your aching knee . (researchers develop material from pig parts that repairs human tissue) (Brief Article)
Business Week, n3398, p79(1)
Nov 14, 1994
DOCUMENT TYPE: Brief Article ISSN: 0007-7135 LANGUAGE: ENGLISH
RECORD TYPE: CITATION
From a pig 's intestine to your aching knee . **(researchers develop material from pig parts that repairs human tissue)** (Brief Article)

12/3,AB,K/12 (Item 12 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2002 The Gale Group. All rts. reserv.
02913868 SUPPLIER NUMBER: 12085056
Pig intestine yields versatile tissue graft.
Ezzell, Carol
Science News, v141, n16, p246(1)
April 18, 1992
CODEN: SCNEB ISSN: 0036-8423 LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 576 LINE COUNT: 00053
ABSTRACT: Pig intestine is being used by researchers for experimental tissue grafts in animals. Human research will follow in about two years. Research teams hope the technology will be helpful in strengthening bladder muscles and as skin grafts.
TEXT:
...there were chitlins. Then, butchers started packaging sausage in the strong but thin casing of pig intestine . Now, tissue engineers are fashioning the proverbial silk purse out of a sow's gut by using a diaphanous inner layer of pig intestine to make tissue grants for replacing worn-out blood vessels, ligaments and bladders. Their aim...
... **Encouraged by SIS' potential, Badylak's team then used the material to replace canine knee ligaments and Achilles tendons. Within weeks, the SIS became fully developed ligament and tendon tissue, they found.** Moreover, a tunnel drilled in the dogs' leg bones to accommodate the knee ligaments closed around and fused with the new tissue.
The group hopes to test SIS grants in humans "within a couple of years," Badylak says. He predicts that orthopedic applications will come first, because of the lack of an adequate number of donor ligaments...

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File  98:General Sci Abs/Full-Text 1984-2002/May
File   9:Business & Industry(R) Jul/1994-2002/Jul 09
File  16:Gale Group PROMT(R) 1990-2002/Jul 10
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2002/Jul 10
File 621:Gale Group New Prod.Annou.(R) 1985-2002/Jul 10
File 636:Gale Group Newsletter DB(TM) 1987-2002/Jul 10
File  95:TEME-Technology & Management 1989-2002/Jul W1
File 441:ESPICOM Pharm&Med DEVICE NEWS 2002/Jun W4
File  20:Dialog Global Reporter 1997-2002/Jul 10
File 810:Business Wire 1986-1999/Feb 28
File 813:PR Newswire 1987-1999/Apr 30
File 610:Business Wire 1999-2002/Jul 10
File 613:PR Newswire 1999-2002/Jul 10
File  15:ABI/Inform(R) 1971-2002/Jul 09
File  88:Gale Group Business A.R.T.S. 1976-2002/Jul 10
File 442:AMA  Journals 1982-2002/Jun B2
File 444:New England Journal of Med. 1985-2002/Jul W1
File 149:TGG Health&Wellness DB(SM) 1976-2002/Jun W5
Set     Items   Description
S1        578   PIG??(3N)INTESTIN??
S2    3878756   JOINT? ? OR HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S3      88617   ORTHOPEDIC? OR ORTHOPAEDIC?
S4         73   S1 AND S2:S3
S5       1240   SUBMUCOSA
S6         15   (S5 AND S3) NOT S2
S7         77   S4 OR S6
S8         56   RD (unique items)
S9         42   S8/2002 OR S8/2001 OR S8/2000 OR S8/1999 OR S8/1998 OR S8/1997
S10        14   S8 NOT S9
S11        14   Sort S10/ALL/PY,D
S12        14   Sort S10/ALL/PD,D


12/7/1     (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2002  Thomson Derwent. All rts. reserv.
013240296
WPI Acc No: 2000-412170/200035
  A radiopaque implantable biomaterial device comprising a collagenous
  biomaterial and a radiopaque marker.
Patent Assignee: COOK BIOTECH INC (COOK-N)
Inventor: BLEYER M W; HILES M C; PATEL U H
Number of Countries: 088  Number of Patents: 003
Patent Family:
Patent No     Kind   Date     Applicat No    Kind   Date     Week
WO 200032253   A1  20000608  WO 99US27652    A   19991122  200035  B
AU 200018267   A   20000619  AU 200018267    A   19991122  200044
EP 1051207     A1  20001115  EP 99961751     A   19991122  200059
                             WO 99US27652    A   19991122
Priority Applications (No Type Date): US 98110407 P 19981201
Patent Details:
Patent No  Kind Lan Pg   Main IPC     Filing Notes
WO 200032253  A1 E  38 A61L-027/36
   Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
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CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
AU 200018267 A A61L-027/36 Based on patent WO 200032253
EP 1051207 A1 E A61L-027/36 Based on patent WO 200032253
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI
Abstract (Basic): WO 200032253 A1
NOVELTY - A radiopaque implantable biomaterial device comprises:
(a) a collagenous biomaterial having a biotropic agent which comprises at least one of a proteoglycan, growth factor, glycoprotein and glycosaminoglycan disposed thereon; and
(b) a radiopaque marker disposed on the collagenous material.
USE - The devices can be used to treat a variety or medical conditions by introducing the device into the alimentary, circulatory, coronary, urological, renal or organ systems. Examples of use include coronary stents, in the treatment of aneurysms, for coronary, vascular, body wall repair, **orthopaedic** , tissue graft or dermal applications.
ADVANTAGE - The device combines the use of a biocompatible material with radiopacity.
pp; 38 DwgNo 0/6
Derwent Class: B07; D22; P34
International Patent Class (Main): A61L-027/36
International Patent Class (Additional): A61K-035/38; A61L-029/00; A61L-031/00

12/7/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2002 Thomson Derwent. All rts. reserv.
011915995
WPI Acc No: 1998-332905/199829
Biocompatible graft prosthesis comprising a collagen-based matrix structure - may be prepared from submucosal tissue sources and is useful in e.g. bone repair or neurological applications
Patent Assignee: COOK BIOTECH INC (COOK-N); COOK INC (COOK-N); MED INST INC (MEDM-N); COOK INST INC (COOK-N)
Inventor: COOK W A; HILES M C; KOZMA T G; PATEL U H
Number of Countries: 079 Number of Patents: 011
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9822158	A2	19980528	WO 97US14855	A	19970822	199829	B
AU 9865318	A	19980610	AU 9865318	A	19970822	199843	
EP 925077	A2	19990630	EP 97954888	A	19970822	199930	
			WO 97US14855	A	19970822		
CZ 9900548	A3	19990811	WO 97US14855	A	19970822	199937	
			CZ 99548	A	19970822		
SK 9900224	A3	19991008	WO 97US14855	A	19970822	199952	
			SK 99224	A	19970822		
BR 9711166	A	19990817	BR 9711166	A	19970822	199954	
			WO 97US14855	A	19970822		
KR 2000035803	A	20000626	WO 97US14855	A	19970822	200111	
			KR 99701423	A	19990222		
US 6206931	B1	20010327	US 9624542	P	19960823	200119	
			US 9624693	P	19960906		
			US 97916490	A	19970822		

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MX 9901763      A1  20000401  MX 991763        A   19990222  200124
AU 742457       B   20020103  AU 9865318       A   19970822  200209
JP 2002508673   W   20020319  WO 97US14855     A   19970822  200222
                              JP 98517831      A   19970822
Priority Applications (No Type Date): US 9624693 P 19960906; US 9624542 P
  19960823; US 97916490 A 19970822
Patent Details:
Patent No  Kind Lan Pg   Main IPC     Filing Notes
WO 9822158     A2 E  33 A61L-027/00
   Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
   CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU
   LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA
   UG UZ VN YU ZW
   Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT
   KE LS LU MC MW NL OA PT SD SE SZ UG ZW
AU 9865318     A         A61L-027/00   Based on patent WO 9822158
EP 925077      A2 E      A61L-027/00   Based on patent WO 9822158
   Designated States (Regional): BE CH DE DK ES FR GB IE IT LI NL SE
CZ 9900548     A3        A61L-027/00   Based on patent WO 9822158
SK 9900224     A3        A61L-027/00
BR 9711166     A         A61L-027/00   Based on patent WO 9822158
KR 2000035803  A         A61F-002/00   Based on patent WO 9822158
US 6206931     B1        A61F-002/02   Provisional application US 9624542
                                       Provisional application US 9624693
MX 9901763     A1        A61L-027/00
AU 742457      B         A61L-027/00   Previous Publ. patent AU 9865318
                                       Based on patent WO 9822158
JP 2002508673  W     36 A61L-027/00   Based on patent WO 9822158
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Abstract (Basic): WO 9822158 A

The following are claimed: (A) graft prosthesis, comprising a purified, collagen-based matrix structure which is removed from a submucosa tissue source. The purified structure has (i) a contaminant level which makes it biocompatible, (ii) an endotoxin level of less than 12 endotoxin units per gram, (iii) a nucleic acid content of less than 2 mu g per gram, (iv) a virus level of less than 500 plaque forming units per gram and/or (v) a processing agent level of less than 100,000 parts per million per kilogram. (B) composition comprising a collagen-containing structure removed from a tissue source which initially contains the structure and other tissue. The structure has an endotoxin level of no greater than 12 endotoxin units per gram. (C) purified collagen-containing matrix, which is obtained from a mammalian tissue source. The matrix comprises mammalian tela submucosa and residual contaminants from the tissue source. The structure is obtained by a process comprising disinfecting the mammalian tissue, then removing the structure from the disinfected tissue.

USE- The materials described above may be used to promote regrowth and healing of damaged tissue structures. They can be used to induce regrowth of natural connective tissue or bone, or to prepare tissue graft constructs for use in orthopaedic soft tissue applications. They may be used to provide orthopaedic grafts for use as connective tissue to hold fractured bone pieces together and in proper orientation in the body. They can be used as collagenous matrices for producing transformed cells, e.g., bone progenitor cells, or in body wall repair, e.g., in repair of abdominal wall defects such as hernias. They can also be used in tissue grafting in urogenital applications, or in neurological applications (e.g. to repair defects due to trauma, tumour

resection or decompressive procedures).
ADVANTAGE- The materials are purer than related prior art materials. The process used for producing the materials allows easy removal of the matrices from the tissue sources.
Dwg.0/1
Derwent Class: B04; D22; P32; P34
International Patent Class (Main): A61F-002/00; A61F-002/02; A61L-027/00
International Patent Class (Additional): A61K-035/38; C12N-005/06

12/7/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010887264
WPI Acc No: 1996-384215/199638
Bone graft compsn. prepd. from intestinal submucosa tissue - useful in e.g. filling or bridging bone defects and assisting repair of high-risk fractures and attachment of prostheses and treating periodontal diseases
Patent Assignee: METHODIST HEALTH GROUP INC (METH-N); PURDUE RES FOUND (PURD); METHODIST HOSPITAL OF INDIANA INC (METH-N)
Inventor: BADYLAK S F; VOYTIK-HARBIN S; VOYTIK S
Number of Countries: 070 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9624365	A1	19960815	WO 96US1833	A	19960209	199638	B
AU 9647780	A	19960827	AU 9647780	A	19960209	199649	
US 5641518	A	19970624	US 92976156	A	19921113	199731	
			US 94176565	A	19940103		
			US 94343204	A	19941122		
			US 95386432	A	19950210		
EP 808167	A1	19971126	EP 96903815	A	19960209	199801	
			WO 96US1833	A	19960209		
AU 692063	B	19980528	AU 9647780	A	19960209	199833	
JP 10513388	W	19981222	JP 96524472	A	19960209	199910	
			WO 96US1833	A	19960209		
EP 808167	B1	20020605	EP 96903815	A	19960209	200238	
			WO 96US1833	A	19960209		

Priority Applications (No Type Date): US 95386432 A 19950210; US 92976156 A 19921113; US 94176565 A 19940103; US 94343204 A 19941122
Cited Patents: CZ 141094
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9624365	A1	E	19	A61K-035/38	
Designated States (National): AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN					
Designated States (Regional): AT BE CH DE DK EA ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
AU 9647780	A			A61K-035/38	Based on patent WO 9624365
US 5641518	A		5	A61K-035/38	Cont of application US 92976156 Cont of application US 94176565 CIP of application US 94343204 Cont of patent US 5275826 CIP of patent US 5516533
EP 808167	A1	E		A61K-035/38	Based on patent WO 9624365
Designated States (Regional): DE FR GB IT					
AU 692063	B			A61K-035/38	Previous Publ. patent AU 9647780

Based on patent WO 9624365
JP 10513388 W 16 A61L-027/00 Based on patent WO 9624365
EP 808167 B1 E A61K-035/38 Based on patent WO 9624365
Designated States (Regional): DE FR GB IT
Abstract (Basic): WO 9624365 A

Inducing bone repair in warm blooded vertebrates comprises implanting a powdered bone graft compsn. contg. intestinal submucosal tissue delaminated from both the tunica muscularis and the luminal portion of the tunica mucosa of warm blooded vertebrate intestine. Also claimed is a bone graft compsn. comprising: (i) powdered intestinal tissue contg. tunica submucosa delaminated as above, or its protein digest; and (ii) a bioactive agent or physiologically compatible mineral.

The compsn. is pref. formed by compressing powdered intestinal tissue into a desired three dimensional construct to conform to the dimensions of the target area for endogenous bone formation, prior to implantation. The compsn. further comprises an added growth factor and a calcium-contg. mineral.

USE - The compsn. is non-immunogenic and is used in orthopaedic surgery for augmenting bone fusions, aiding in the repair of high-risk fractures, filling or bridging bone defects and assisting the attachment of metal or plastic prosthetic devices. They are additionally used to treat periodontal diseases and in other tooth repair processes, as well as in repairing craniofacial defects, arthrodesis and carrying out skeletal reconstruction following sec. bone loss to infection or neoplasm. When combined with bioactive agents, the compsn. constitutes a delivery system for the treatment of bone disorders or diseases, such as bone neoplasm, osteogenesis imperfecta, osteoporosis and osteomyelitis, avoiding the need for parenteral admin. of antibiotics.

ADVANTAGE - The compsn. is readily prepd. from an abundant and inexpensive by-prod. The material induces and/or supports the regeneration of bony skeletal tissue, the structural and mechanical integrity of the grafted area being at least equiv. to that of the pre-existing bone.

Dwg.0/0

Abstract (Equivalent): US 5641518 A

A method for inducing the repair of bone in a warm-blooded vertebrate, said method comprising the step of implanting an effective amount of a biodegradable bone graft construct into a site in said vertebrate in need of repair, said bone graft construct consisting essentially of intestinal submucosal tissue of a warm-blooded vertebrate or a digest thereof in powder form compressed into a pre-determined three-dimensional shape prior to implantation, wherein the compressed powder bone graft maintains its general shape after implantation during the replacement of the graft construct with endogenous tissues.

Dwg.0/0

Derwent Class: B07; D22; P32; P34
International Patent Class (Main): A61K-035/38; A61L-027/00
International Patent Class (Additional): A61F-002/02; A61F-002/28

File 350:Derwent WPIX 1963-2002/UD,UM &UP=200243
File 344:CHINESE PATENTS ABS MAY 1985-2002/MAY
File 347:JAPIO Oct 1976-2002/Mar(Updated 020702)
File 371:French Patents 1961-2002/BOPI 200209
Set Items Description

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S1          140   PIG??(3N)INTESTIN??
S2       330651   JOINT? ? OR HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S3         6113   ORTHOPEDIC? OR ORTHOPAEDIC?
S4            1   S1 AND S2:S3
S5           77   SUBMUCOSA
S6            3   (S5 AND S3) NOT S2
S7            4   S4 OR S6
S8            0   S8/2002 OR S8/2001 OR S8/2000 OR S8/1999 OR S8/1998 OR S8/1997
S9            0   S8 NOT S9
S10           1   S1 AND S2:S3
S11           3   (S5 AND S3) NOT S2
S12           4   S10:S11
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12/3,AB/1     (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.
00809860
MEDICAL DEVICE
DISPOSITIF MEDICAL
Patent Applicant/Inventor:
  LAHTINEN Mika, Dobelnsgatan 2 B, S-752 37 Uppsala, SE, SE (Residence), SE
    (Nationality)
Legal Representative:
  GOTEBORGS PATENTBYRA DAHLS AB (agent), P.O. Box 606, S-182 16 Danderyd, SE,
Patent and Priority Information (Country, Number, Date):
  Patent:               WO 200141674 A1 20010614 (WO 0141674)
  Application:          WO 2000SE2460 20001207  (PCT/WO SE0002460)
  Priority Application: SE 994454 19991207; SE 994747 19991223; SE 2000285
    20000131
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ
  DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
  LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG
  SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 33850
English Abstract
  The present invention relates to a medical device with improved
  biological properties for an at least partial contact with blood, bodily
  fluids and/or tissues when introduced in a mammalian body, which device
  comprises a core and a nucleic acid present in a biologically compatible
  medium. Said nucleic acid encodes a translation or transcription product,
  which is capable of promoting endothelialisation in vivo at least
  partially on a synthetic surface of said core. The present invention also
  relates to a method of producing a medical device according to the
  invention. Further, the present invention also relates to a method of
  improving a mammalian, preferably human, body's biocompatibility with a
  synthetic surface, which method comprises introducing a device according
  to the invention in the body with an at least partial contact with blood,
  bodily fluids and/or tissues and administering a nucleic acid present in
  a biologically compatible medium to the surroundings thereof. Said
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nucleic acid encodes a translation or transcription product capable of promoting endothelialisation in vivo at least partially on said synthetic surface. The administration of nucleic acid may in alternative embodiments be performed before, simultaneously as or after the introduction of the device in a body. In addition, combinations of these embodiments are also encompassed.

File 348:EUROPEAN PATENTS 1978-2002/Jun W05
File 349:PCT FULLTEXT 1983-2002/UB=20020627,UT=20020620

Set	Items	Description
S1	306	PIG??(3N)INTESTIN??
S2	141129	JOINT? ? OR HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S3	5448	ORTHOPEDIC? OR ORTHOPAEDIC?
S4	40	S1 AND S2:S3
S5	528	SUBMUCOSA
S6	18	(S5 AND S3) NOT S2
S7	56	S4 OR S6
S8	0	S8/2002 OR S8/2001 OR S8/2000 OR S8/1999 OR S8/1998 OR S8/1997
S9	0	S8 NOT S9
S10	2	S1(S)S2:S3
S11	1	S5(S)S3 NOT S2
S12	**3**	**S10:S11**

17/7/19 (Item 19 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2002 Inst for Sci Info. All rts. reserv.
02026256 Genuine Article#: JV211 Number of References: 16
PERMUCOSAL IMPLANTATION PILOT-STUDY WITH HA-COATED DENTAL IMPLANT IN DOGS
Author(s): LIN H; VANTVEEN SJGA; KLEIN CPAT
Corporate Source: LEIDEN UNIV,SCH MED,DEPT BIOMAT,RIJNSBURGERWEG 10,BLDG 55/2333 AA LEIDEN//NETHERLANDS/; LEIDEN UNIV,SCH MED,DEPT BIOMAT,RIJNSBURGERWEG 10,BLDG 55/2333 AA LEIDEN//NETHERLANDS/; FREE UNIV LOUWESWEG 1,ACTA VU/1066 EA AMSTERDAM//NETHERLANDS/
Journal: BIOMATERIALS, 1992, V13, N12, P825-831
ISSN: 0142-9612
Language: ENGLISH Document Type: ARTICLE
Abstract: **The histological response of transmucosal one-stage titanium dental implants coated with hydroxyapatite is described.** The gingival adhesion to the implant was examined with regard to coated, partially coated or non-coated surfaces in the cervical region. From each coating type, 9 implants were inserted into dogs. Six months after the insertion, 19 implants could be evaluated, but 8 implants were lost. From these 19 implants, 6 implants showed severe pockets with inflammation up to the bony tissue. The 13 successful implants showed direct bone bonding with the hydroxyapatite coating and **adhesion of submucosal connective tissue to the implant surface**, with inflammation. The marginal gingiva showed slight inflammation. A totally coated implant will probably introduce inflammation by debris formation against the rough implant surface more easily. The hydroxyapatite coating often disappeared in the soft tissue or in the oral cavity. Bone which directly adapted to the coating seemed to prevent it from resorption.

17/7/34 (Item 34 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
06510929 90199543 PMID: 2698262

[The anatomy of the maxillary and mandibular retromolar area. Effect on complete dentures. 1. The retrotuberosity space]
Anatomie des zones retromolaires maxillaire et mandibulaire. Incidences en prothese adjointe totale. I. L'espace retro-tuberositaire.
Taieb F; Carpentier P
Les Cahiers de prothese (FRANCE) Jun 1989, (66) p6-13, ISSN 0397-1643 Journal Code: 7613319
Document type: Journal Article ; English Abstract
Languages: FRENCH
Main Citation Owner: NLM
Record type: Completed
Located at the border between vestibule and palatine area, the retrotuberosity space plays a major role in full dentures, as it involves the lateral portion of the posterior palatine joint . The arrangement of the pterygo-maxillary complex determines the morphology of this space and its use in full prosthesis. In most cases, the pterygo-mandibular ligament originates at a distance of the tuberosity, leaving a small mucosal fold, posterior to the tuberosity. This element, often mistaken with the origin of the ligament, should neither be released at the prosthetic border, nor be considered as a negative index. On the contrary, **the presence of compressible submucosal glandular tissue, could be used when the posterior joint is prepared.**
Record Date Created: 19900510

17/7/46 (Item 46 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04775709 BIOSIS NO.: 000080078836
NEUROGENIC BLADDER FROM SPINAL CORD TRACTION
AUTHOR: GARAT J M; ARAGONA F; MARTINEZ E
AUTHOR ADDRESS: FUNDACION PUIGVERT, C/CARTAGENA 340, 08025 BARCELONE, ESPAGNE.
JOURNAL: J UROL 91 (3). 1985. 145-154. 1985
FULL JOURNAL NAME: Journal d'Urologie
CODEN: JOURD
RECORD TYPE: Abstract
LANGUAGE: FRENCH
ABSTRACT: A neurogenic bladder was the presenting syndrome in 3 cases of spinal cord traction. Of the typical symptomatic triad: neuro- orthopedic , cutaneous and urologic, the latter was of primary importance. Symptoms in the 1st case were incomplete bladder retention with distention of upper urinary tract, right-sided vesicorenal reflux and renal insufficiency. Six mo. after excision of a sacral lipoma and freeing of the filum terminale, micturition had become normal without residue, and renal function normalized. **Right-sided reflex was corrected by submucosal advancement surgery with good results.** The clinical history was more suggestive in the 2nd case. Although inaugural symptoms were mictional, there was foot paralysis and a retrosacral lipoma above an abnormal hairy tuft in the upper part of the gluteal cleft. Operation revealed the presence of a dermoid cyst and a lipoma. Their excision combined with section of the filum terminale allowing ascension of the medullary cone. Marked clinical and urodynamic improvement was obtained with normal micturition and disappearance of incontinence. An anti-reflux operation suppressed residual reflux with good urographic results. Marked improvement in mictional disorders was obtained in the 3rd case after excision of a sacral extradural lipoma and section of the filum

terminale, allowing objective ascension of the medullary cone by 4 cm. A very detailed analysis was conducted of similar cases reported in the literature, about 2% of neurogenic bladders in children being affected. The importance of early diagnosis is emphasized as well as the essential need to establish a precise diagnosis of the lipoma of cauda equina and of medullary fixation. Early neurosurgery is justified by the high frequency of improvement in cases treated in this way.

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File 155:MEDLINE(R) 1966-2002/Jul W1
File 144:Pascal 1973-2002/Jul W1
File   5:Biosis Previews(R) 1969-2002/Jun W5
File   6:NTIS 1964-2002/Jul W3
File   8:Ei Compendex(R) 1970-2002/Jul W1
File  99:Wilson Appl. Sci & Tech Abs 1983-2002/May
File 238:Abs. in New Tech & Eng. 1981-2002/Jun
File  65:Inside Conferences 1993-2002/Jul W1
File  77:Conference Papers Index 1973-2002/May
File  73:EMBASE 1974-2002/Jun W5
File  34:SciSearch(R) Cited Ref Sci 1990-2002/Jul W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File  94:JICST-EPlus 1985-2002/May W3
File  35:Dissertation Abs Online 1861-2002/Jun
Set     Items   Description
S1      26362   SUBMUCOSAL NOT SUBMUCOSA
S2      17000   PIG??(3N)INTESTIN??
S3     465991   ORTHOPEDIC? OR ORTHOPAEDIC?
S4    1293507   JOINT? ? OR HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S5        126   S1 AND S3:S4
S6    1315486   MILLIMET? OR MM
S7          1   S5 AND S6 [not relevant]
S8        126   S5
S9        103   RD (unique items)
S10        35   S9/2002 OR S9/2001 OR S9/2000 OR S9/1999 OR S9/1998 OR S9/1997
S11        67   S9 NOT (S10 OR S7)
S12   3334659   TUMOR? ? OR TUMOUR? ?
S13      3176   S1()S12
S14        58   S11 NOT S13
S15      3484   S1(2W)S12
S16        58   S14 NOT S15
S17        58   Sort S16/ALL/PY,D
S18         9   S11 NOT S17 [not relevant]


8/3,AB,K/8     (Item 8 from file: 442)
DIALOG(R)File 442:AMA  Journals
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00050250
Epidermolysis Bullosa Acquisita and Associated Symptomatic Esophageal Webs
 (Article)
  Stewart, Margaret I., MD; Woodley, David T., MD; Briggaman, Robert A., MD
  Archives of Dermatology
  1991; 127: 373 (5)
  Epidermolysis  bullosa  acquisita  (EBA)  is  a  well-characterized,
subepidermal  blistering  disorder associated with autoimmunity to type VII
collagen,  which  is the collagen localized to anchoring fibrils within the
dermoepidermal junction of skin. Although the full clinical spectrum of EBA
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is still being defined, it is known that the clinical features of EBA may be reminiscent of hereditary dystrophic epidermolysis bullosa, a scarring blistering disease of children that is commonly associated with esophageal stenosis. We describe a patient with EBA who had both an acral-predominant mechanobullous disease akin to dystrophic epidermolysis bullosa and an inflammatory, widespread bullous eruption reminiscent of bullous pemphigoid in association with esophageal webs and dysphagia. Although esophageal involvement is common in dystrophic epidermolysis bullosa, a review of the literature shows that this is the first bonafide case of EBA with symptomatic esophageal disease.
... bullous dermatosis, she had begun to develop tense blisters on noninflammatory bases predominantly on the elbows , knees , hands, and feet. These acral lesions were evident particularly on trauma-prone surfaces and healed...
... and vaginal mucosa were spared. Deep erythematous erosions and tense blisters were seen on her knees , elbows , hands, and feet. These lesions were on noninflammatory bases but were often within fields of...**webs are commonly transverse membranes, 2 to 3 mm in size, composed of mucosal and submucosal tissue**. Interestingly, webs as found in our patient generally are seen in the proximal 2...

File 98:General Sci Abs/Full-Text 1984-2002/May
File 9:Business & Industry(R) Jul/1994-2002/Jul 09
File 95:TEME-Technology & Management 1989-2002/Jul W1
File 16:Gale Group PROMT(R) 1990-2002/Jul 10
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2002/Jul 10
File 621:Gale Group New Prod.Annou.(R) 1985-2002/Jul 10
File 636:Gale Group Newsletter DB(TM) 1987-2002/Jul 10
File 441:ESPICOM Pharm&Med DEVICE NEWS 2002/Jun W4
File 20:Dialog Global Reporter 1997-2002/Jul 10
File 810:Business Wire 1986-1999/Feb 28
File 813:PR Newswire 1987-1999/Apr 30
File 610:Business Wire 1999-2002/Jul 10
File 613:PR Newswire 1999-2002/Jul 10
File 15:ABI/Inform(R) 1971-2002/Jul 09
File 88:Gale Group Business A.R.T.S. 1976-2002/Jul 10
File 442:AMA Journals 1982-2002/Jun B2
File 444:New England Journal of Med. 1985-2002/Jul W1
File 149:TGG Health&Wellness DB(SM) 1976-2002/Jun W5

Set	Items	Description
S1	1647	**SUBMUCOSAL** NOT SUBMUCOSA
S2	3878805	JOINT? ? OR HIP OR HIPS OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S3	88620	ORTHOPEDIC? OR ORTHOPAEDIC?
S4	18	S1 (S)S2:S3
S5	16	RD (unique items)
S6	4	S5/2002 OR S5/2001 OR S5/2000 OR S5/1999 OR S5/1998 OR S5/1997
S7	12	S5 NOT S6
S8	**12**	**Sort S7/ALL/PD,D**

4/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013239724 **Image available**
WPI Acc No: 2000-411598/200035

Apparatus for tissue pooling for treatment prior to implantation into recipient
Patent Assignee: REGENERATION TECHNOLOGIES INC (REGE-N)
Inventor: HANSTKE S; MILLS C R; WIRONEN J F
Number of Countries: 091 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200029037	A1	20000525	WO 99US26407	A	19991108	200035	B
AU 200023445	A	20000605	AU 200023445	A	19991108	200042	
EP 1128849	A1	20010905	EP 99967099	A	19991108	200151	
			WO 99US26407	A	19991108		

Priority Applications (No Type Date): US 99390174 A 19990907; US 98191232 A 19981113; US 99378527 A 19990820
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200029037	A1	E	67	A61L-002/00	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200023445	A		A61L-002/00	Based on patent WO 200029037
EP 1128849	A1	E	A61L-002/00	Based on patent WO 200029037

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): WO 200029037 A1

NOVELTY - A process for tissue production comprising pooling of tissue, other than blood tissue, from a plurality of donors and processing the pooled tissue to reduce or eliminate pathogenic or potentially pathogenic organisms.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) an implant cleaning, perfusion and passivation process which comprises cyclic exposure of the implant to increased and decreased positive or negative pressures or both; and

(2) an implant for insertion into a patient comprising biologically active substances, selected from nucleic acids, proteins, peptides, antineoplastic compounds, antiinflammatory compounds and antibiotic compounds which are deeply interpenetrated into the matrix of the implant

USE - The process and method are useful for treating diseased tissue which comprises harvesting tissue or a tissue portion, cyclically exposing the tissue ex vivo to elevated and reduced pressures, optionally in the presence of cleaning solutions and optionally in the presence of sonic energy, optionally perfusing the tissue with biologically active substances and reimplanting the treated tissue.

ADVANTAGE - The apparatus and process is safe an efficient at effectively pooling tissue prior to implantation

DESCRIPTION OF DRAWING(S) - The drawing depicts the apparatus for conducting the process:

solenoids (301a-h)
reaction chamber (310)
mixing tank (330)
vacuum receiver tank (360)
pressure tank (380)
pp; 67 DwgNo 1/16

Derwent Class: A96; B04; D16; D22; P34

International Patent Class (Main): A61L-002/00
International Patent Class (Additional): A61L-002/025; A61L-101-02;
A61L-101-06; A61L-101-20; A61L-101-22; A61L-101-32; A61L-101-34;
A61L-101-36; A61L-101-38; A61L-101-40; A61L-101-54; A61L-101/02

File 350:Derwent WPIX 1963-2002/UD,UM &UP=200243
File 344:CHINESE PATENTS ABS MAY 1985-2002/MAY
File 347:JAPIO Oct 1976-2002/Mar(Updated 020702)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	69	**SUBMUCOSAL** NOT SUBMUCOSA
S2	6113	ORTHOPEDIC? OR ORTHOPAEDIC?
S3	330651	HIP OR HIPS OR JOINT? ? OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S4	**2**	**S1 AND S2:S3**

File 348:EUROPEAN PATENTS 1978-2002/Jun W05
File 349:PCT FULLTEXT 1983-2002/UB=20020627,UT=20020620

Set	Items	Description
S1	474	**SUBMUCOSAL** NOT SUBMUCOSA
S2	5448	ORTHOPEDIC? OR ORTHOPAEDIC?
S3	141129	HIP OR HIPS OR JOINT? ? OR KNEE OR KNEES OR ELBOW? ? OR WRIST? ?
S4	171	S1 AND S2:S3
S5	**5**	**S1(S)S2:S3 [not relevant]**